

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

STEVEN C. GILLETT,

Plaintiff,

vs.

BNSF RAILWAY COMPANY, f/k/a
Burlington Northern and Santa Fe
Railway Company,

Defendant.

4:20-CV-3120

MEMORANDUM AND ORDER

The plaintiff, Steven C. Gillett, alleged in his complaint a claim pursuant to the Federal Employers' Liability Act (FELA), [45 U.S.C. § 51 et seq.](#), regarding injuries sustained in the course and scope of his employment with the defendant, BNSF Railway Company. [Filing 1](#). The parties have filed motions seeking to exclude expert testimony for failing to meet the requirements of admissibility pursuant to [Fed. R. Evid. 702](#). The defendant's motions concern the testimony of two of the plaintiff's expert witnesses, Dr. Ernest Chiodo ([filing 24](#)) and Dr. Paul Rosenfeld ([filing 26](#)). The plaintiff's motion pertains to the defendant's expert, Dr. Ritvik Mehta. [Filing 39](#).

In addition, the defendant filed a motion for summary judgment asserting that the plaintiff's claims are barred by the applicable statute of limitation, and, assuming that one or both of the plaintiff's experts will be excluded, the plaintiff will be without the proof necessary to satisfy the requirements of a toxic exposure claim. [Filing 22](#). The defendant's summary judgment motion also seeks dismissal of the plaintiff's Locomotive Inspection Act ([49 U.S.C. § 20701](#)) claim, and purports to seek judgment as a matter of

law on the ground that the plaintiff's injury was unforeseeable. For the reasons that follow, the Court will deny the parties' motions.

I. STANDARD OF REVIEW

Summary judgment is proper if the movant shows that there is no genuine dispute as to any material fact and that the movant is entitled to judgment as a matter of law. See [Fed. R. Civ. P. 56\(a\)](#). On a motion for summary judgment, facts must be viewed in the light most favorable to the nonmoving party only if there is a genuine dispute as to those facts. [Torgerson v. City of Rochester](#), 643 F.3d 1031, 1042 (8th Cir. 2011) (en banc). Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the evidence are jury functions, not those of a judge. *Id.* But the nonmovant must do more than simply show that there is some metaphysical doubt as to the material facts. *Id.*

In order to show that disputed facts are material, the party opposing summary judgment must cite to the relevant substantive law in identifying facts that might affect the outcome of the suit. [Quinn v. St. Louis County](#), 653 F.3d 745, 751 (8th Cir. 2011). The mere existence of a scintilla of evidence in support of the nonmovant's position will be insufficient; there must be evidence on which the jury could conceivably find for the nonmovant. [Barber v. C1 Truck Driver Training, LLC](#), 656 F.3d 782, 791-92 (8th Cir. 2011). Where the record taken as a whole could not lead a rational trier of fact to find for the nonmoving party, there is no genuine issue for trial. [Torgerson](#), 643 F.3d at 1042.

II. BACKGROUND

The plaintiff was employed by the defendant for forty-two uninterrupted years—starting in 1971 and working until he retired in 2013. During this time, the plaintiff primarily worked out of St. Joseph, Missouri, and over the course

of his career performed the crafts of a brakeman, switchman, and conductor. [Filing 23 at 2](#). The plaintiff alleged that during his tenure with the defendant, he was exposed to diesel exhaust at different and variable levels depending on his work location. [Filing 1 at 2](#).

The plaintiff reported experiencing diesel exhaust while riding in a caboose, and when he was riding in a second or third locomotive. Although there wouldn't be diesel exhaust in the first locomotive when it was moving, when it was stopped, and if the windows were open (which they normally were in the summer), the wind would blow diesel exhaust into the cab. [Filing 23 at 3](#). Diesel exhaust blowing into open windows was not a problem when the defendant began providing locomotives with air-conditioned cabs, but the plaintiff only operated a newer air-conditioned locomotive between 1996 and 2003 when he was working over-the-road routes. For the majority of his career, he primarily operated the older locomotives that did not have air-conditioning. [Filing 31 at 195](#). The plaintiff said he experienced situations where diesel exhaust seemed to be venting directly into the cab itself instead of venting outside. [Filing 31 at 197](#). This occurred approximately twenty-five times over the course of the plaintiff's career. On those occasions, an engineer would turn in a repair order for the locomotive.

The plaintiff was diagnosed with throat cancer on December 1, 2015. [Filing 23 at 4](#). While undergoing treatment, CT studies showed irregular opacities, nodules, and lesions in his left lung beginning in April 2017. According to the plaintiff, on November 24, 2017, a CT scan showed what was described as a "malignant-appearing mass" in his lung, but medical records do not definitively mention lung cancer until December 2017. [Filing 34 at 3](#).

III. DISCUSSION

1. EXCLUSION OF EXPERT WITNESS TESTIMONY

(a) Standards for Admission of Expert Opinion

Employers subject to FELA are required to provide and maintain a reasonably safe place for their employees to work. *Cowden v. BNSF Ry. Co.*, 690 F.3d 884, 889 (8th Cir. 2012). Although FELA is to be liberally construed to further Congress' remedial goal, it does not make the employer the insurer of the safety of its employees while they are on duty. *Consol. Rail Corp. v. Gottshall*, 512 U.S. 532, 543 (1994). FELA is premised on common law concepts of negligence and injury. *Urie v. Thompson*, 337 U.S. 163, 181 (1949). The railroad's duty to provide a safe workplace is a duty of reasonable care—that which is reasonably foreseeable under like circumstances. *CSX Transp. Inc. v. McBride*, 564 U.S. 685, 703 (2011). If an employer's negligence is established, a relaxed standard for causation is applied. *Id.* In that event, the causation test is whether the employer's negligence played any part, no matter how slight, in causing the injury for which damages are sought. *Id.*; *Paul v. Mo. Pac. R.R. Co.*, 963 F.2d 1058, 1061 (8th Cir. 1992).

Unless the causal connection between an injury and the alleged hazard is obvious to a layman, expert evidence is required to establish the causal link. *Brooks v. Union Pac. R.R. Co.*, 620 F.3d 896, 899 (8th Cir. 2010). The cause of the plaintiff's squamous cell carcinomas in his left lung and neck is not obvious to a layman. Thus, expert testimony is required to establish the cause of the plaintiff's cancers—even with the relaxed causation standards required by FELA. *Id.* Rule 702 speaks to the admissibility of expert testimony.

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an

opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge, will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data, (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702

A trial court is charged with a gatekeeping responsibility to ensure that all Rule 702 expert testimony and evidence to be admitted is both relevant and reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999); *United States v. Merrell*, 842 F.3d 577, 582 (8th Cir. 2016). In screening expert testimony, the trial court must assess whether evidence based on scientific, technical, or other specialized knowledge is useful for the jury, whether the witness is qualified, and whether the expert's reasoning or methodology is applied properly to the facts at issue. *Marmo v. Tyson Fresh Meats, Inc.*, 457 F.3d 748, 757 (8th Cir. 2006). Testimony is relevant if it is "sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 591 (1993).

The trustworthiness or reliability of an expert's testimony is measured by evaluating whether the methodology underlying the expert's conclusions is scientifically valid. *Id.* at 589-90; *Barret v. Rhodia, Inc.*, 606 F.3d 975, 980 (8th Cir. 2010). Factors to consider when assessing reliability include; (1) whether the expert's theories have been tested, (2) whether the expert's theories have been subject to peer review or publication, (3) whether there is a known or potential error rate, (4) whether there are controlling standards, (5) whether the theory or technique is generally accepted in the relevant scientific

community, (6) whether the expertise was developed for litigation or naturally flowed from research, and (7) whether the expert ruled out other alternative explanations. *Russell v. Whirlpool Corp.*, 702 F.3d 450, 456 (8th Cir. 2012); *Polski v. Quigley Corp.*, 538 F.3d 836, 839 (8th Cir. 2008).

The reliability inquiry is intended to be fact specific and flexible, with the trial court using, adapting, or rejecting factors as the particular case demands. *Russell*, 702 F.3d at 450. Standards regarding proof of causation under FELA and the standards for admission of expert testimony under Fed. R. Evid. 702 are distinct issues and do not affect one another. *Claar v. Burlington N. R.R. Co.*, 29 F.3d 499, 503 (9th Cir. 1994).

The trial court should focus its reliability inquiry on principles and methodology, not on the conclusions that are generated. *Kuhn v. Wyeth, Inc.*, 686 F.3d 618, 625 (8th Cir. 2012). The Eighth Circuit Court of Appeals has drawn a distinction between challenges to scientific methodology, and challenges to the application of that scientific methodology. *United States v. Gipson*, 383 F.3d 689, 696 (8th Cir. 2004). In general, deficiencies in the application of scientific methodology go to the weight of the expert's testimony, not to its admissibility. *Id.* It is up to the opposing party to challenge the factual basis for an expert's opinion in cross-examination. *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929 (8th Cir. 2001).

Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence. *Daubert*, 509 U.S. at 596. "As long as the expert's scientific testimony rests upon 'good grounds, based on what is known' it should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at

the outset." *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 562 (8th Cir. 2014) (quoting *Daubert*, 509 U.S. at 590).

Daubert calls for the liberal admission of expert testimony. *Id.* Doubts regarding the usefulness of expert testimony are resolved in favor of admissibility. *United States v. Finch*, 630 F.3d 1057, 1062 (8th Cir. 2011). Exclusion of an expert's opinion should occur only if it is so fundamentally unsupported that it can offer no assistance to a jury. *Hose v. Chicago Nw. Transp. Co.*, 70 F.3d 968, 974 (8th Cir. 1995). The party calling the challenged expert has the burden to demonstrate the reliability of its expert's opinion by a preponderance of the evidence. *Adams v. Toyota Motor Corp.*, 867 F.3d 903, 915 (8th Cir. 2017).

(b) Paul E. Rosenfeld, Ph.D.

The plaintiff designated Dr. Paul Rosenfeld as his liability expert who will generally testify about notice and foreseeability of the hazards associated with the plaintiff's employment, including exposure to carcinogens, and the knowledge within the railroad industry of the hazards associated with the exposure of employees to toxins. [Filing 27-3 at 1](#). Dr. Rosenfeld earned a doctorate in soil chemistry from the University of Washington in 1999. He is the principal environmental chemist for Soil Water Air Protection Enterprise (SWAPE) located in Santa Monica, California, and has over twenty-five years of experience in conducting environmental investigations and risk assessments for evaluating the impact exposures to various toxins have on human health. [Filing 27-3 at 3](#).

According to his curriculum vitae, Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, storage tanks, unconventional oil drilling operations, and locomotive and construction engines. He has monitored and modeled pollution sources, and evaluated the

impacts of pollution on workers at industrial facilities and residents in the surrounding communities. Dr. Rosenfeld reported that he has served as an expert witness and has testified about pollution sources causing nuisance or personal injury, and has been an expert witness on numerous cases involving exposure to soil, water, and air contaminants from industry, railroad, agricultural, and military sources. Dr. Rosenfeld is the principal author of several peer-reviewed articles about pollution and has taught environmental health sciences at the UCLA Department of Environmental Health. [Filing 27-3 at 4-9](#).

The defendant posits three grounds for excluding Dr. Rosenfeld's opinions. First, the defendant argues that Dr. Rosenfeld is unqualified to give an opinion regarding the plaintiff's exposure to diesel exhaust because he was not educated or trained as an industrial hygienist, epidemiologist, or toxicologist. [Filing 27 at 6-7](#). Further, Dr. Rosenfeld was never employed by the EPA or OSHA, and has never done any air monitoring for diesel exhaust on railroad property or published peer reviewed literature on exposure to diesel exhaust or its constituents.

What Dr. Rosenfeld isn't, and what he hasn't done, are grounds for cross-examination, but not grounds for excluding his opinions. The issue is whether he possesses scientific, technical, or other specialized knowledge that will help the jury to understand the evidence or to determine a fact in issue, which here is whether the plaintiff experienced exposure to diesel particulate matter throughout his employment with the defendant that exceeded a background level. The defendant failed to address anything about Dr. Rosenfeld's actual education, training, and professional experiences that would call into question whether he possesses scientific, technical, or other specialized knowledge to offer his opinions in this matter.

Dr. Rosenfeld's curriculum vitae and report, as well as his deposition testimony, detail his experience in monitoring, evaluating, and analyzing all kinds of environmental contaminations and the risks resulting from such contaminations. He reported performing numerous investigations, monitoring projects, and assessments for governmental and private entities concerning risks to human health and the environment due to several toxic substances, including diesel particulate matter. The fact that Dr. Rosen has not singularly focused his education, training and experienced on diesel exhaust in the railroad industry does not disqualify him as an expert on assessing environmental contaminations and the resulting risks of such contaminations.

The defendant also argues that Dr. Rosenfeld did not use proper methodology in forming his opinions. [Filing 27 at 7-13](#). The defendant first argues that the methodology Dr. Rosenfeld used was designed by the EPA for administering Superfund sites rather than for occupational health purposes. [Filing 27 at 7](#). One reason the defendant provides for why this distinction makes a difference is that OSHA is the governmental agency charged with regulating occupational exposures, not the EPA. The Court fails to find this argument persuasive.

In his report, Dr. Rosenfeld explained that in order to estimate the plaintiff's excess cancer risk from inhalation of diesel particulate matter, he prepared a demonstrative health risk assessment to articulate the impact of average annual air concentrations of diesel particulate matter for various exposure durations, and in preparing this estimate, he relied on methodology developed by the EPA. [Filing 27-4 at 21](#). He testified that the EPA methodology was initially created for superfund sites, but has since been applied to residential properties, and used by municipalities as well as the Department of Defense for non-superfund site evaluations. [Filing 31 at 151](#). Further,

according to Dr. Rosenfeld, the EPA methodology was utilized by the California Air Resources Board to evaluate eighteen railyards and assess the cancer risks to nearby residents, as well as to the railyard workers. [Filing 31 at 152](#). Thus, contrary to the defendant's argument, there is evidence that the methodology Dr. Rosenfeld utilized is accepted in the scientific community, and has specifically been employed to assess cancer risks associated with exposure to environmental contaminants emanating from railyards.

The defendant faults Dr. Rosenfeld for not using the Bradford Hill criteria in forming his opinions. [Filing 27 at 13](#). The Bradford Hill criteria is an epidemiological study approach employed to assess when an association can truly be deemed causal. *In re Lipitor (Atrovastatin Calcium) Marketing, Sales Practices and Products Liability Litigation*, 892 F.3d 624, 638 (4th Cir. 2018). Here, Dr. Rosenfeld is not opining on causation, and as such, Bradford Hill has no discernable material relevance with respect to Dr. Rosenfeld's opinions regarding the plaintiff's exposure to diesel particulate matter.

The defendant's final argument concerning Dr. Rosenfeld's methodology takes issue with his conversion of elemental carbon to diesel particulate matter. [Filing 27 at 8](#). Dr. Rosenfeld reported that for carcinogenic risk assessment, the EPA considers diesel particulate matter to be synonymous with diesel exhaust and is the most frequently determined measure of diesel exhaust. It is also the measure that is reported in toxicological studies of diesel engine exhaust. [Filing 27-4 at 21](#). The EPA methodology that Dr. Rosenfeld used calculated values for chronic daily intake of diesel particulate matter, and a worker's inhalation cancer risk based on the annual average concentration of diesel particulate matter in the air. [Filing 27-4 at 21-23](#).

As Dr. Rosenfeld explained, currently the most widely accepted method to measure diesel particulate matter is to measure airborne elemental carbon

as a surrogate for diesel particulate matter. [Filing 27-4 at 24](#). However, the proportion of diesel particulate matter that is elemental carbon varies greatly across different occupations. Thus, using data from peer-reviewed literature concerning the approximate range of elemental carbon to total carbon ratios in the railroad work environment, Dr. Rosenfeld calculated the most conservative estimate of the range of worker inhalation cancer risk values regarding occupational exposure to diesel particulate matter. [Filing 27-4 at 24-25](#).

Contrary to the defendant's argument, Dr. Rosenfeld did not "manipulate the numbers of the peer-reviewed literature and actual air monitoring—without pointing to any authority supporting this eccentric approach—to shoehorn it into his flawed methodological framework." [Filing 27 at 8](#). In his report, Dr. Rosenfeld showed his work in great detail. Moreover, in general, deficiencies in the application of scientific methodology go to the weight of the expert's testimony, not to its admissibility. [Gipson, 383 F.3d at 697](#).

The defendant's third argument for excluding Dr. Rosenfeld's opinion is that he relied on insufficient and inaccurate data for his conclusions. [Filing 27 at 13-14](#). Generally, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and such expert's opinion must be excluded if, and only if, it is so fundamentally unsupported that it can offer no assistance to the jury. [United States v. Coutentos, 651 F.3d 809, 820 \(8th Cir. 2011\)](#).

Dr. Rosenfeld's opinions are not fundamentally unsupported. His report shows that he considered and relied on a variety of case-specific information, as well as general research in arriving at the opinions and conclusions he expressed. For example, Dr. Rosenfeld read the plaintiff's deposition, the deposition of a co-worker, and the deposition of the plaintiff's son who is also

the defendant's employee. He reviewed the plaintiff's medical records. He considered the defendant's internal memorandums, policies and procedures, and air sampling data provided by the defendant. He also read and considered peer-reviewed literature on diesel exhaust exposure in the railroad industry, and the risk of cancer from exposure to diesel exhaust.

The Court concludes that by a preponderance of the evidence, Dr. Rosenfeld is qualified to express the opinions in his report, that such opinions are based on scientific, technical, and other specialized knowledge that is useful for the jury, and that his reasoning and methodology is applied properly to the facts at issue. [Marmo, 457 F.3d at 757](#).

(c) Ernest P. Chiodo, M.D., J.D.

The plaintiff designated Dr. Ernest P. Chiodo as his medical expert who will testify about the nature and extent of the plaintiff's injuries, and opine on both general and specific causation regarding the plaintiff's cancers. Dr. Chiodo earned his Doctor of Medicine from Wayne State University School of Medicine in 1983, and a Juris Doctorate from Wayne State University School of Law in 1986. After obtaining his law degree, Dr. Chiodo continued to further his education, and currently holds the following degrees: a Masters of Public Health from Harvard; a Masters of Science in Biomedical Engineering and a Masters of Science in Occupational and Environmental Health Sciences with specialization in Industrial Toxicology from Wayne State; a Masters of Science in Threat Response Management and a Masters of Business Administration with a concentration in economics from the University of Chicago; and a Masters of Science in Evidence-Based Health Care from University of Oxford. [Filing 23-5 at 12-13](#).

Dr. Chiodo is licensed to practice medicine in Michigan, Illinois, Florida, and New York. [Filing 23-5 at 15](#). He has board certifications from the American

Board of Internal Medicine, the American Board of Preventive Medicine in Occupational Medicine, the American Board of Preventive Medicine in Occupational Medicine as well as in Public Health and General Preventive Medicine, and from the American Board of Industrial Hygiene as a Certified Industrial Hygienist. [Filing 23-5 at 16](#). He has served as the Medical Director and Manager of Medical and Public Health Services for the City of Detroit, and has also served as an assistant professor of internal medicine and an adjunct professor of law. [Filing 23-5 at 15-17](#).

Proof of causation in a toxic tort case requires evidence showing general causation—that the identified toxin has the capacity to cause the injury suffered by the plaintiff in persons subject to the same exposure level as the plaintiff—and specific causation—that the toxin was a cause of the plaintiff's injury. [Mattis v. Carlon Elec. Products](#), 295 F.3d 856, 860 (8th Cir. 2006).

As a predicate for his opinions, Dr. Chiodo noted that his review of the plaintiff's medical records showed that the plaintiff was found to have "head and neck cancer," had undergone a laryngectomy for squamous cell carcinoma, and was also found to have squamous cell carcinoma of his left lung. [Filing 25-4 at 3](#). Also as a predicate for his opinions, Dr. Chiodo accepted and relied on Dr. Rosenfeld's report and opinion concerning the plaintiff's exposure to diesel particulate matter to conclude that the plaintiff had been exposed to above background amounts of diesel particulate matter throughout his employment with the defendant. [Filing 25-4 at 3-4](#).

Regarding general causation, Dr. Chiodo reported searching peer-reviewed literature utilizing the National Library of Medicine database and was able to identify several research studies, which he listed in his report, that documented a causal link between diesel exhaust and lung and laryngeal

cancer.¹ [Filing 25-4 at 13](#). From this, Dr. Chiodo opined that evidence-based medicine supports the assertion that to a reasonable degree of medical certainty "exposure to diesel exhaust, as well as railroad work are causes of laryngeal cancer as well as lung cancer." *Id.*

For his specific causation analysis, Dr. Chiodo reported utilizing a differential etiology, which he described as a technique in which a physician first rules in all scientifically plausible causes of the injury, and then rules out the least plausible causes until the most likely causes remain. [Filing 25-4 at 4](#). Based on his understanding of the facts, Dr. Chiodo reported that the likely causes of the plaintiff's laryngeal cancer included his railroad exposure to diesel exhaust, his occupation in railroad work, his smoking history, his alcohol consumption, and a human papilloma virus infection. He opined that none of these causes could be ruled out. [Filing 25-4 at 13-14](#). Similarly, Dr. Chiodo reported that the likely causes of the plaintiff's lung cancer included his exposures to diesel exhaust, his occupation with the railroad, and his smoking history. He also opined that none of these causes can be ruled out. [Filing 25-4 at 14](#).

The defendant argues that Dr. Chiodo's opinions must be excluded as unreliable and not based on sufficient facts. First, the defendant asserts that Dr. Chiodo based his opinions on a mistaken belief that the plaintiff was diagnosed with laryngeal cancer. Instead, the defendant asserts that the plaintiff was diagnosed with hypopharyngeal cancer, and was "never diagnosed with laryngeal cancer." [Filing 25 at 10](#). The defendant is simply

¹ Dr. Chiodo also listed several studies that concerned asbestos exposures. However, subsequent to Dr. Chiodo's report, the plaintiff withdrew all previous allegations that concerned occupational exposure to asbestos, and as such, the opinions Dr. Chiodo expressed in his report about asbestos are no longer part of this litigation.

wrong. The plaintiff's medical records that are in evidence report that he was diagnosed with both laryngeal cancer and hypopharyngeal cancer. *See e.g. Filing 33-5 at 4.* The plaintiff underwent both a total laryngectomy and pharyngectomy with flap reconstruction. *Filing 33-5 at 6.*

The Court notes that the medical records that are in evidence describe the plaintiff's condition in both very general terms such as head and neck cancer, or in slightly more specific terms such as squamous cell carcinoma of the neck. *Filing 33-5 at 4.* At other times, the description of the plaintiff's injury is more specific, identifying the plaintiff's cancer as malignant neoplasm of overlapping sites of larynx (*filing 38-2 at 9*), or biopsy proven squamous cell carcinoma of the right piriform sinus (*filing 38-2 at 11*). There is no indication in the evidence that these various descriptions of the plaintiff's injury found in his medical records purport to describe substantively different conditions. The Court is unpersuaded that Dr. Chiodo's description of the plaintiff's injury as laryngeal cancer, when that is one of the descriptions of the plaintiff's condition found throughout his medical records, invalidates his opinion on causation as being unreliable or based on insufficient facts.

Next, the defendant argues that Dr. Chiodo's opinions do not have a sufficient factual basis because he could not identify, and specifically refused to disclose a dosage for the plaintiff's diesel exhaust exposure. *Filing 25 at 11-16.* But here, the plaintiff did not disclose Dr. Chiodo as an expert who would testify generally about the plaintiff's exposure to carcinogens—that was Dr. Rosenfeld's designation. *Filing 23-5.* Instead, Dr. Chiodo was identified only as a medical expert who would testify as to the nature, extent, and cause of the plaintiff's injuries.

Dr. Chiodo was clear in his report, and in his deposition testimony, that he was relying exclusively on Dr. Rosenfeld's analysis and opinion concerning

the plaintiff's exposure to diesel particulate matter in forming his causation opinions. "An expert may base an opinion on facts in the case that the expert has been made aware of or personally observed." [Fed. R. Evid. 703](#). Here, Dr. Chiodo relied on Dr. Rosenfeld's opinion that the plaintiff was exposed to above background amounts of diesel particulate matter throughout his employment with the defendant. [Filing 25-4 at 3-4](#). Further, Dr. Chiodo was not required to identify a mathematically precise dosage of the plaintiff's exposure to diesel particulate matter, but only cite evidence which a reasonable person could use to conclude that the plaintiff's exposure during the course of his employment with the defendant was, more likely than not, a cause of his cancers. *See Bednar v. Bassett Furniture Mfg. Co.*, 147 F.3d 737, 740 (8th Cir. 1998).

The defendant's brief in support of its motion to exclude includes an argument regarding what it characterized as Dr. Chiodo "one hit" theory—his opinion that, as the defendant reports, one hit or one exposure to a carcinogenic substance can cause cancer. [Filing 25 at 14](#). But Dr. Chiodo's report does not express any sort of "one hit" theory regarding his opinion about the specific cause of the plaintiff's cancer. Instead, Dr. Chiodo adopted Dr. Rosenfeld's opinion regarding the plaintiff's above background exposure to diesel particulate matter in connection with his employment with the defendant. The whole "one hit" topic came up during Dr. Chiodo's deposition where he was discussing general causation issues. He reported that there isn't a dosage threshold level for the cancer-causing effects of a carcinogenic substance to manifest, and that theoretically, one puff of a cigarette could cause a very unlucky person to develop cancer. [Filing 33-3 at 25](#). Whatever relevance it might have, Dr. Chiodo's theoretical discussion of a one-time exposure to a cancer-causing substance is not an opinion he expressed regarding the cause of the plaintiff's cancers.

Without citation to authority, the defendant argues that Dr. Chiodo's opinions are insufficient because he only stated that the plaintiff's cancers *could* be caused by his exposures to diesel particulate matter. The defendant argues that it was necessary for him to opine as to the proximate cause of plaintiff's cancers—that they were more likely than not caused by his occupational exposure to diesel particulate matter. [Filing 25 at 16](#). The defendant is mistaken. Common law proximate cause principles do not apply to FELA claims. Under FELA, an injury is proximately caused by the railroad's negligence if that negligence played any part, no matter how slight, in causing the injury. [McBride, 564 U.S. at 703](#).

Finally, the defendant argues that Dr. Chiodo's specific causation opinions are unreliable because he failed to follow a reliable methodology in reaching his conclusions. [Filing 25 at 18](#). Dr. Chiodo used a differential etiology methodology in reaching his conclusions regarding specific causation. [Filing 25-4 at 13-14](#). He first ruled in all the potential causes shown in the evidence for the plaintiff's laryngeal cancer, as well as for the plaintiff's lung cancer. For the plaintiff's laryngeal cancer, he ruled in his railroad exposure to diesel exhaust, his occupation in railroad work, his smoking history, his alcohol consumption, and his human papilloma virus infection. For lung cancer, he ruled in the plaintiff's exposure to diesel exhaust, his occupation in railroad work, and his smoking history. [Filing 25-4 at 14](#). He was, however, unable to rule out any of the potential causes for either injury.

The defendant argues that Dr. Chiodo's differential etiology methodology is unreliable because he did not research or make any attempt to quantify the cancer risk attributed to the non-occupational causes he identified. According to the defendant, Dr. Chiodo was required to eliminate causes based on odds ratios or relative risks, as well as evaluate whether a non-occupational risk

such as smoking was the sole proximate cause of the plaintiff's cancers. [Filing 25 at 22-24](#).

In general, a differential diagnosis or etiology passes muster under the four considerations identified in *Daubert*. [Johnson](#), 754 F.3d at 564. Further, experts are not required to rule out all possible causes when performing a differential etiology analysis. *Id.* at 563. Here, the defendant doesn't actually dispute that the non-occupational risks Dr. Chiodo identified can cause the plaintiff's cancers. Instead, the defendant appears to be repeating its proximate cause argument in a different form—that Dr. Chiodo should rank, and then rule out, the least likely causes of the plaintiff's cancers. However, in a FELA case ranking several distinct carcinogens, each with the capacity to cause the plaintiff's malignancy in the absence of the others, is immaterial. Not to be repetitious, but that is true because under FELA, an injury is proximately caused by the railroad's negligence if that negligence played any part, no matter how slight, in causing the injury. [McBride](#), 564 U.S. at 703.

Dr. Chiodo expressed the opinion in his report that of none of the exposures that he identified as a cause of the plaintiff's laryngeal and lung cancer could be eliminated. The obvious corollary to this opinion is that none of the exposures he identified could then be the sole proximate cause of the plaintiff's cancers. Thus, contrary to the defendant's argument, by not eliminating an exposure, Dr. Chiodo necessarily found that no one exposure could be the sole proximate cause of the plaintiff's cancers. And he testified to that effect. *See* [filing 25-5 at 22](#). As Dr. Chiodo pointed out in his deposition, both diesel exhaust and cigarette smoking, in the absence of the other, are capable of causing cancer. But smoking doesn't make you immune from diesel exhaust contributing to the cause of your cancer, just like diesel exhaust

exposures don't make you immune from smoking contributing to the cause of your cancer. [Filing 25-5 at 30](#).

The Court concludes that by a preponderance of the evidence, Dr. Chiodo is qualified to express the opinions in his report, that such opinions are based on scientific, technical, and other specialized knowledge that is useful for the jury, and that his reasoning and methodology is applied properly to the facts at issue. [Marmo, 457 F.3d at 757](#).

(d) Ritvik P. Mehta, M.D.

The plaintiff moved to exclude the opinions of the defendant's expert, Dr. Ritvik P. Mehta. [Filing 41](#). The defendant reports that Dr. Mehta is its medical expert regarding the plaintiff's throat cancer. [Filing 44 at 1](#). Dr. Mehta identified himself as an otolaryngologist, and has earned board certifications in otolaryngology (head and neck surgery), neurotology (skull base surgery), and facial plastic and reconstructive surgery. [Filing 41-2 at 1-3](#). He is licensed to practice medicine in California, and maintains a practice in the general area of San Diego.

The plaintiff does not challenge Dr. Mehta's qualifications to render opinions on general and specific causation. [Filing 40 at 7](#). The plaintiff does, however, challenge Dr. Mehta's various opinions in this case regarding his assumptions about the plaintiff's exposure to diesel exhaust, as well as foundation and methodology issues concerning his general and specific causation opinions. [Filing 40 at 6-11](#).

Dr. Mehta reported reviewing a limited number of records regarding the plaintiff's exposure to diesel particulate matter. Those records included Dr. Rosenfeld's report, and the depositions of the plaintiff, his son, and another BNSF employee Frederick Edwards. [Filing 41-2 at 4](#). From these documents, Dr. Mehta opined that there was "no objective evidence" showing that the

plaintiff was exposed to elevated levels of diesel exhaust that were above the normal background levels to which an average person in an urban environment would be exposed. [Filing 41-2 at 7](#). Instead, Dr. Mehta concluded that Dr. Rosenfeld's report of the plaintiff's diesel exhaust exposures were "entirely subjective with no methodology for quantifying" the plaintiff's potential exposure. *Id.*

The plaintiff argues that because Dr. Mehta is not an industrial hygienist, or qualified in a similar field, he cannot reach his own conclusions on the plaintiff's exposure levels. [Filing 40 at 6-7](#). But that's not what Dr. Mehta did. He simply rejected Dr. Rosenfeld's exposure conclusions because in his view, they were entirely subjective. Whether or not Dr. Mehta's rejection of Dr. Rosenfeld's exposure conclusions is correct or persuasive can and should be tested with a vigorous cross-examination and the presentation of contrary evidence. *Daubert*, 509 U.S. at 596. But it is not a basis to exclude his testimony.

Next, the plaintiff seeks to exclude Dr. Mehta's opinion regarding general causation. Dr. Mehta takes the position that the plaintiff's throat cancer was hypopharyngeal cancer, not laryngeal cancer, and that the medical literature does not support occupational exposure to diesel exhaust as a cause of hypopharyngeal cancer, or as a cause of laryngeal cancer. [Filing 41-2 at 16](#). The plaintiff argues that Dr. Mehta's medical database query was insufficient to research the medical literature to support his general causation opinion, and to evaluate the plaintiff's experts' reports. [Filing 40 at 9](#).

In screening medical expert testimony, the Court's role is to assess whether Dr. Mehta is qualified—which the plaintiff concedes—and whether his reasoning or methodology is applied properly to the facts at issue. *Marmo*, 457 F.3d at 757. Here, Dr. Mehta's methodology in reaching his general

causation opinion was the same as Dr. Chiodo's. Both reviewed the plaintiff's medical records to understand the plaintiff's medical condition, and searched the medical literature to reach their conclusions on whether diesel exhaust caused what they understood to be the plaintiff's injury. The difference is, they reached opposing conclusions—which for experts retained by opposing parties in litigation is not at all unusual. In general, deficiencies in the application of a methodology goes to the weight of that expert's testimony, not to its admissibility. *Gipson*, 383 F.3d at 696. Here, it is up to the plaintiff to challenge with a vigorous cross-examination and the presentation of contrary evidence the factual basis for Dr. Mehta's general causation opinion. *Bonner*, 259 F.3d at 929.

Finally, the plaintiff argues that Dr. Mehta's specific causation opinion must be excluded due to his failure to rule in all potential causes or risk factors. *Filing 40 at 11*. But that argument misstates Dr. Mehta's specific causation methodology. Like Dr. Chiodo, Dr. Mehta reported using a differential etiology analysis to develop his specific causation opinion. *Filing 41-2 at 14-15*. Similar to Dr. Chiodo, Dr. Mehta included as potential causal factors for the plaintiff's head and neck cancer; (1) tobacco abuse, (2) alcohol abuse, (3) human papilloma virus infection, and (4) possible diesel exhaust occupational exposure. *Filing 41-2 at 15*. However, unlike Dr. Chiodo, Dr. Mehta ruled out diesel exhaust exposure after concluding that the scientific data he found did not meet the causality criteria, and because in his view, there was no objective data or biomarker demonstrating that the plaintiff was exposed to any significant level of diesel exhaust. *Id.*

The plaintiff's arguments to exclude Dr. Mehta's specific causation opinion is much the same as his argument for exclusion of Dr. Mehta's general causation opinion. Its focus is on the application of a methodology, not the

reliability of the methodology itself. Deficiencies in Dr. Mehta's application of a differential etiology goes to the weight of his testimony, not to its admissibility. *Gipson*, 383 F.3d at 696. Those deficiencies are tested by way of a vigorous cross-examination and the presentation of contrary evidence—not exclusion. *Daubert*, 509 U.S. at 596.

The Court concludes that by a preponderance of the evidence, Dr. Mehta is qualified to express the opinions in his report, that such opinions are based on scientific, technical, and other specialized knowledge that is useful for the jury, and that his reasoning and methodology is applied properly to the facts at issue. *Marmo*, 457 F.3d at 757.

2. DEFENDANT'S SUMMARY JUDGMENT MOTION

The defendant's motion for summary judgment asserts four grounds for judgment as a matter of law. Each will be considered.

(a) Statute of Limitations

The defendant argues that the plaintiff's claim is barred by FELA's three-year statute of limitations found at 45 U.S.C. § 56, which provides that "[n]o action shall be maintained under [FELA] unless commenced within three years from the day the cause of action accrued." Here, the parties agree that the plaintiff's head and neck cancer was first diagnosed on December 1, 2015. *Filing 23 at 4*; *filing 34 at 3*. According to the defendant, the plaintiff was diagnosed with a "malignant neoplasm" of the lower lobe, left lung, on April 13, 2017. *Filing 23 at 4*. The defendant's assertion is consistent with a Mosaic Life Care medical record on that date reporting that the plaintiff's diagnosis is "malignant neoplasm of lower lobe, left bronchus or lung." *Filing 23-3 at 15*. The plaintiff, however, represents that his medical records do not definitively mention that his left lung condition was "cancer" until sometime in December,

2017. [Filing 34 at 5](#). The plaintiff's complaint in this matter was filed on October 8, 2020. [Filing 1](#).

The defendant asserts that the plaintiff's cause of action accrued as early as December 1, 2015, but no later than April 13, 2017. Thus, according to the defendant, the plaintiff was required to file his complaint no later than April 13, 2020. [Filing 23 at 10](#).

The point at which an action accrues for an injury condition that is not obvious is dependent on when the injury is discovered. When an injury, such as the plaintiff's, is not a single traumatic one with immediate symptoms, but rather a latent one with symptoms appearing over time, the cause of action does not accrue until the employee is aware, or should be aware, of his condition. [White v. Union Pac. R.R.](#), 867 F.3d 997, 1001 (8th Cir. 2017). Further, in addition to knowing about an injury condition, the employee must also know, or have reason to know, about the cause of his injury condition. Both components require an objective inquiry into when the plaintiff knew, or should have known in the exercise of reasonable diligence, the essential facts of his injury and its cause. *Id.*

This rule imposes an affirmative duty on a plaintiff to investigate potential causes of a known injury. [Tolston v. Nat'l R.R. Passenger Corp.](#), 102 F.3d 863, 865 (7th Cir. 1996). The plaintiff need only know, or have reason to know, of a potential cause. Actual knowledge of causation is not necessary to find that a cause of action has accrued. [Fries v. Chi. & Ns. Transp. Co.](#), 909 F.2d 1092, 1096 (7th Cir. 1990). The point at which a plaintiff may be said to have reason to know that an injury is connected to some possible cause may depend on factors such as the number of possible causes that exist for an injury, whether the medical advice suggests a possible cause, or whether medical advice quells a plaintiff's suspicion regarding the cause of an injury. [Dubose v.](#)

Kansas City S. Ry. Co., 729 F.2d 1026, 1031 (5th Cir. 1984); *Edgett v. Union Pac. R.R. Co.*, No. 8:18-CV-407, 2021 WL 1238498, at *8 (D. Neb. April 1, 2021).

Whether a plaintiff reasonably should have known about the cause of their claim is a two-part inquiry. *O'Connor v. Boeing N. Am., Inc.*, 311 F.3d 1139, 1150 (9th Cir. 2002). The first question asks: Would a reasonable person in the plaintiff's shoes have been expected to inquire about the cause of their injury in the first place? *Id.* The second question asks: If the plaintiff had reason to inquire, would an inquiry have provided the plaintiff with knowledge of a connection between their injury and its cause? *Id.*

The defendant argues that the plaintiff acknowledged that over the course of his career he was exposed to diesel exhaust, and as president of the local union, he would receive and relay complaints from coworkers about their exposures to diesel exhaust. According to the defendant, the plaintiff's knowledge of exposure, coupled with his chronic and worsening symptoms, were sufficient to trigger his duty to investigate the cause of his cancers no later than the date a malignancy was diagnosed on his left lung, April 13, 2017. [Filing 23 at 10.](#)

Missing from the defendant's argument is evidence that the plaintiff either knew, or should have known in the exercise of reasonable diligence, that diesel exhaust is carcinogenic. Certainly, the plaintiff knew he had been exposed to diesel exhaust during the course of his career with the defendant, and knew that he and others found it to be an offensive nuisance. But would a reasonable person in the plaintiff's shoes have been expected to inquire whether diesel exhaust could be a cause of his cancers? The evidence, considered in a light most favorable to the plaintiff, suggests no.

The plaintiff was a cigarette smoker, and smoked between one to two packs per day for around forty-six years. He would also smoke cigars. [Filing 31](#)

at 121-23. His doctors told him that smoking, and his virus infection, caused his cancers. [Filing 31 at 203, 211](#). None of his doctors had indicated to him that his cancers were caused by his work with the defendant. [Filing 31 at 210](#). Although the plaintiff knew he was exposed to diesel exhaust during the time he worked for the railroad, he testified that he didn't know that diesel exhaust caused cancer. *Id.* Instead, he first learned that diesel exhaust could cause cancer after he saw advertisements on television and on Facebook, and contacted his attorney. *Id.*

The Court can't help but observe that the defendant's expert, Dr. Mehta, opined in his report that occupational exposure to diesel exhaust "shows no scientific data meeting the causality criteria" sufficient to be a cause of the plaintiff's neck cancer. [Filing 41-2 at 15](#). One might ask, how can the plaintiff be expected to suspect diesel exhaust as a cause of his cancers, if experts (and in particular the defendant's expert) say there is no scientific data meeting the criteria for causally linking diesel exhaust exposure to cancer?

The Court finds that the fact that the plaintiff knew he had been exposed to diesel exhaust is not sufficient for him to know, or have reason to inquire further, that diesel exhaust was a potential cause of his cancer. Neither was the fact of his worsening symptoms. He has an extensive smoking history, and had been told by his doctors that smoking, as well as his human papilloma virus infection, were causes of his cancers. This medical advice certainly suggested possible causes to him, and would have quelled any suspicion regarding the cause of his cancers. Given this evidence, the Court finds that a reasonable person in the plaintiff's shoes would not have been expected to inquire further about the cause of his cancers on the dates that they were first diagnosed.

That's not to say that the plaintiff's claim accrued when he saw the advertisements and contacted his lawyer. This Court has held that simply becoming aware of a potential financial recovery based on a legal claim is not the sort of discovery to which FELA's discovery rule applies. *Smith v. BNSF Ry. Co.*, 4:17-cv-3062, 2018 WL 6529503 at *3 (D. Neb. Oct. 16, 2018). But here, the defendant, as the movant, had the burden to demonstrate that it had an entitlement to judgment as a matter of law by showing that there was no genuine dispute as to any material fact. Here, the Court finds that there are factual disputes regarding when the plaintiff first had a duty to investigate whether his exposure to diesel exhaust may have been a cause of his cancers.

(b) Locomotive Inspection Act

The plaintiff alleged that the defendant violated the Locomotive Inspection Act, 49 U.S.C. § 20701, which requires that locomotives are to be in proper condition and safe to operate without unnecessary danger of personal injury. *Filing 1 at 4*. Specifically, the plaintiff alleged that the defendant violated three regulations: 49 C.F.R. § 229.7, which requires the entire locomotive to be in proper condition and safe to operate "without unnecessary peril to life or limb;" 49 C.F.R. § 229.45, which requires that all systems and components on a locomotive shall be free of conditions that endanger the safety of the crew; and 49 C.F.R. § 229.43, which requires combustion products to be "released entirely outside the cab and other compartments" and requires that exhaust stacks be of sufficient height to prevent entry of combustion products into the cab or other compartments under usual operating conditions.

The parties' briefing has narrowed the focus to only § 229.43—which makes sense since that regulation specifically pertains to exposure to diesel exhaust in a locomotive cab. The defendant argues that the plain language of § 229.43 forecloses the plaintiff's claim. The Court disagrees. The first sentence

of § 229.43(a) provides: "Products of combustion shall be released entirely outside the cab and other compartments." The plaintiff testified that he experienced around twenty-five occasions when diesel exhaust was vented directly into the cab of a locomotive he was in. [Filing 31 at 197](#). On those occasions, the engineer would turn in a repair order for the locomotive. The plaintiff's testimony, if believed by a jury, could constitute a violation of § 229.43(a).

The defendant argues that in order to prevail, the plaintiff would have to show that in a "specific locomotive, on a specific date, he was exposed to diesel exhaust which entered the cab directly; he has no such evidence." [Filing 23 at 20](#). The defendant's assertion regarding the specificity of the plaintiff's evidence is not well-taken.

Neither is the plaintiff's argument well-taken that the Act is violated when diesel exhaust released outside the cab infiltrates back into a cab for whatever reason. [Filing 34 at 21](#). Section 229.43(a) does not speak to, or even imply, that the infiltration of diesel exhaust released entirely outside the cab violates the Act. But there is evidence, that if believed by a jury, could support a finding that on a few occasions a locomotive that the plaintiff was in had diesel exhaust vented directly into the cab, which could possibly constitute a violation of [49 C.F.R. § 229.43\(a\)](#).

(c) Failure of Evidence

The defendant argues that should the Court exclude either of the plaintiff's experts, the defendant is entitled to summary judgment as a matter of law. [Filing 23 at 11](#). The Court has not excluded either of the plaintiff's experts, and as such, the defendant is not entitled to judgment as a matter of law.

(d) Foreseeability

The defendant asserts that the plaintiff failed to provide any evidence that his alleged injuries were reasonably foreseeable. [Filing 23 at 2](#). However, the defendant appears to have abandoned this claim. The defendant's brief does not inform this Court of the basis for its motion, or identify those portions of the record which it believes demonstrates the absence of a genuine issue of material fact regarding foreseeability. See *Torgerson*, 643 F.3d at 1042. Neither has the defendant included any argument in its brief in support of summary judgment on the issue of foreseeability. As such, the defendant's foreseeability argument is without support, and cannot provide it with judgment as a matter of law.

IV. CONCLUSION

For the reasons cited above, the defendant's motions to exclude the plaintiff's experts ([filing 24](#) & [filing 26](#)) are denied. The defendant's motion for summary judgment ([filing 22](#)) is denied. The plaintiff's motion to exclude the defendant's expert ([filing 39](#)) is denied.

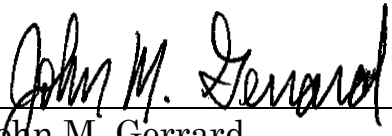
IT IS ORDERED:

1. Defendant's motion to exclude the plaintiff's expert Dr. Ernest Chiodo ([filing 24](#)) is denied.
2. Defendant's motion to exclude the plaintiff's expert Dr. Paul Rosenfeld ([filing 26](#)) is denied.
3. Defendant's motion for summary judgment ([filing 22](#)) is denied.

4. Plaintiff's motion to exclude the defendant's expert Dr. Ritvik Mehta ([filing 39](#)) is denied.

Dated this 7th day of July, 2022.

BY THE COURT:



John M. Gerrard
United States District Judge